ABSTRACT

Qotrunnada, Lisa (2026): **The Relationship between the Use of Perplexity AI and the Students' Academic Writing Achievement**

Academic writing is an essential skill for students, especially EFL learners, who are required to express ideas clearly, logically, and accurately in academic contexts. However, many EFL students still face difficulties in academic writing, including issues with grammar, vocabulary usage, organization of ideas, and writing confidence. In today's digital era, Artificial intelligence (AI) has emerged as a potential tool to support students in overcoming these challenges. One such tool is Perplexity AI, which provides instant feedback, idea generation support, and language assistance. Despite the increasing use of AI-based tools in higher education, empirical research examining the relationship between the use of perplexity and academic writing achievement, particularly at the university level in Indonesia, is still limited. Therefore, this study aims to investigate students' frequency of perplexity AI use, examine their academic writing achievement, and identify the relationship between AI use and their academic writing achievement.

This study employed a quantitative correlational research design. The participants were 30 fourth-semester students of the English Education Department at UIN Sunan Gunung Djati Bandung. Two instruments were used to collect data: a questionnaire consisting of 30 Likert-scale items to measure students' frequency of Perplexity AI usage, and documentation of students' final academic writing exam scores assessed using an IELTS-based writing rubric. The collected data were analyzed statistically using SPSS version 25. After conducting normality testing, Spearman's rank correlation was applied to determine the strength and significance of the relationship between the variables.

The findings revealed a moderate and significant positive relationship between the use of Perplexity AI and students' academic writing achievement. This indicates that students who frequently use Perplexity AI tend to achieve higher academic writing

scores. The results suggest that Perplexity AI contributes positively to students' writing performance by supporting grammar accuracy, vocabulary development, idea organization, and writing confidence. In conclusion, the study demonstrates that increased use of Perplexity AI is associated with better academic writing achievement among EFL students.

Keywords: Perplexity AI, Academic Writing Achievement, Artificial Intelligence, EFL Students.